

**Abstract**

The present invention provides isoformes from a peptide family belonging to South American scorpion *Tityus serrulatus* that acts as hypotensive agents by potentiating Bradykinin and, therefore, can be used as anti-hypertensive drugs. A peptide was firstly isolated from *Tityus serrulatus* venom and showed a strong and long-lasting hypotensive activity when tested in rats. This peptide was first named TsHpt-I (*Tityus serrulatus* Hypotensin-I). Also, three more highly similar isoformes were identified and revealed a peptide family with very close primary structure. They were named TsHpt-II, TsHpt-III and TsHpt-IV.